

The opinion in support of the decision being entered today was **not** written for publication in a law journal and is **not** binding precedent of the Board.

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte EDWINA F. LOWRY and PAUL T. SPIVEY

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Appeal No. 1998-1440  
Application No. 08/368,452

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ON BRIEF

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Before THOMAS, BARRETT, and BARRY, Administrative Patent Judges.  
BARRY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the rejection of claims 4-16. We affirm-in-part.

BACKGROUND

The invention at issue in this appeal relates to manufacturing an ink jet print cartridge. Such a cartridge comprises an ink reservoir in communication with an ink channel and a nozzle plate. The nozzle plate includes holes

from which to eject ink. In the ink reservoir, a foam ink pad prevents ink from leaking through the holes.

The foam ink pad typically contains unreacted foam materials and foam by-products produced while manufacturing the foam. Such materials are leached out of the foam by the ink in the reservoir. Over time, the materials clog the holes of the nozzle plate.

The invention involves immersing a foam ink pad in cold, deionized water for at least six hours. Such immersion removes residual materials from the pad, thereby reducing clogging of the holes of an associated nozzle plate.

Claim 4, which is representative for our purposes, follows:

4. A process for removing an oily material from polyether polyurethane foam ink pads used in reservoirs of inkjet print cartridges, comprising the steps of a) contacting said polyether polyurethane foam ink pads with cold deionized water for a time period of at least about six (6) hours and b) removing said polyether polyurethane foam pads from contact with said cold deionized water.

The references relied on in rejecting the claims follow:

Heffernan	4,824,487	Apr.
25, 1989		
Haruta et al. (Haruta)	5,182,579	Jan. 26, 1993.

Claims 5-9 and 11-16 stand rejected under 35 U.S.C. § 112, ¶ 2, as indefinite. Claims 4-16 stand rejected under 35 U.S.C. § 103(a) as obvious over Haruta in view of Heffernan. Rather than repeat the arguments of the appellants or examiner in toto, we refer the reader to the briefs and answer for the respective details thereof.

#### OPINION

In deciding this appeal, we considered the subject matter on appeal and the rejection advanced by the examiner. Furthermore, we duly considered the arguments and evidence of the appellants and examiner. After considering the totality of the record, we are persuaded that the examiner erred in rejecting claims 5-9, 11-13, 15, and 16 as indefinite and in rejecting claims 4-16 as obvious over Haruta in view of Heffernan. We are also persuaded that the examiner did not

err in rejecting claim 14 as indefinite. Accordingly, we affirm-in-part. Our opinion addresses the following issues:

- indefiniteness rejection of claims 5-9 and 11-16
- obviousness rejection of claims 4-16.

Indefiniteness Rejection of Claims 5-9 and 11-16

We begin by noting the following principles from Miles Labs., Inc. v. Shandon Inc., 997 F.2d 870, 875, 27 USPQ2d 1123, 1126 (Fed. Cir. 1993).

The test for definiteness is whether one skilled in the art would understand the bounds of the claim when read in light of the specification. Orthokinetics, 806 F.2d at 1576. If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, Section 112 demands no more. Hybritech, 802 F.2d at 1385. The degree of precision necessary for adequate claims is a function of the nature of the subject matter. Id.

With these principles in mind, we address the examiner's three reasons for the rejection under 35 U.S.C. § 112, ¶ 2.

First, the examiner rejects claims 5-9 and 11-16 for the following reason.

[C]laims 5-9 and 11-16 depend on a method claim and as such should further define the method. However, the claims as written, there is no step that further defines the method from which the claims depended on. What these claims state are conclusions to a finish [sic] method process. Thus, they do not clearly further define the limitation of the method steps set forth by the claim from which they depended on.

(Examiner's Answer at 6.) The appellants argue, "Appellants have clearly written a preamble to their claims. There is nothing, even remotely, in Title 35 of the United States Code that suggests patent claims cannot have preambles ...."

(Appeal Br. at 8.)

The examiner fails to show that dependent claims 5-9 and 11-16 do not further define independent claim 4. To the contrary, when read in light of the specification, one skilled in the art would understand that each dependent claim specifies a further limitation of the subject matter of the independent claim. While claim 4 specifies in pertinent part "cold deionized water," for example, claim 5 further specifies that the cold water "is at a temperature of about 4°C." While claim 4 specifies in pertinent part "a time period of at least about six (6) hours," for another example, claim 6 further

specifies that "said time period is not to exceed about 72 hours." In view of this understanding, we are persuaded that claims 5-9, 11-13, and 15, read in light of the specification, reasonably apprise those skilled in the art of the scope of the invention. We demand no more. Therefore, we reverse the rejection of claims 5-9, 11-13, and 15 under 35 U.S.C. § 112, ¶ 2.

The examiner further rejects claim 14 for the following reason.

[I]t is unclear in determine [sic] whether the recitation of "reservoirs of ink jet print cartridges" on line 3 of this claim and the one on line 2 of claim 4, which this claim is indirectly depended therefrom, are one in the same; if so, the second and any subsequent occurrence should begin with the word "said" ....

(Final Rejection at 4.) The appellants argue that they have amended the claims "in order to fully comply with the Examiner's suggestions ...." (Appeal Br. at 6.)

"[T]he main purpose of the examination, to which every application is subjected, is to try to make sure that what

each claim defines is patentable. [T]he name of the game is the claim ....'" In re Hiniker Co., 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998) (quoting Giles S. Rich, The Extent of the Protection and Interpretation of Claims--American Perspectives, 21 Int'l Rev. Indus. Prop. & Copyright L. 497, 499, 501 (1990)). Here, claim 14 ultimately depends from claim 4. Claim 4 specifies in pertinent part the following limitations: "[a] process for removing an oily material from polyether polyurethane foam ink pads used in reservoirs of inkjet print cartridges ...." Claim 14 further specifies in pertinent part the following limitations: "said dried polyether polyurethane foam pads are placed in reservoirs of said ink jet print cartridges ...." Accordingly, claim 14 refers to reservoirs that may be different than the reservoirs of claim 4.

The failure of claim 14 to refer to **said** reservoirs of said ink jet print cartridges, i.e., the reservoirs of claim 4, causes it to be indefinite. In view of this failure, we are persuaded that claim 14, read in light of the specification, would not reasonably apprise those skilled in

the art of the scope of the invention. Therefore, we affirm the rejection of claim 14 under 35 U.S.C. § 112, ¶ 2. We agree with the examiner, (Examiner's Answer at 6), however, that the rejection could be overcome by amending claim 14 to specify in pertinent part following limitations: "said dried polyether polyurethane foam pads are placed in reservoirs of **said** ink jet print cartridges ...."

The examiner further rejects claim 16 for the following reason. "[T]he recitation of 'said process is a step in an inkjet print cartridge manufacturing process' is indefinite because the manufacturing process has not been defined." (Final Rejection at 4.) The appellants argue, "Appellants have not limited their invention to be germane to a particular manufacturing process. The invention herein may be used as a step in any art recognized print cartridge manufacturing process." (Appeal Br. at 6.)

Claim 16 ultimately depends from claim 4. Claim 4 specifies in pertinent part the following limitations: "[a] process for removing an oily material from polyether



polyurethane foam ink pads ...." Claim 16 further specifies the following limitations: "[a] process for removing oily material from polyether polyurethane foam ink pads in accordance with claim 4 wherein said process is a step in an inkjet print cartridge manufacturing process."

The examiner fails to show that claim 16 is indefinite. To the contrary, when read in light of the specification, one skilled in the art would understand that the claim further specifies that the removing of oily material specified in claim 4 is a step in a process for manufacturing an inkjet print cartridge. In view of this understanding, we are persuaded that claim 16, read in light of the specification, reasonably apprises those skilled in the art of the scope of the invention. We demand no more. Therefore, we reverse the rejection of claim 16 under 35 U.S.C. § 112, ¶ 2. Next, we address the obviousness rejection of claims 4-16.

#### Obviousness Rejection of Claims 4-16

We begin by noting the following principles from

In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993).

In rejecting claims under 35 U.S.C. Section 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).... "A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." In re Bell, 991 F.2d 781, 782, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting In re Rinehart, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)). If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned.  
In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

With these principles in mind, we address the examiner's rejection and the appellants' argument.

The examiner rejects the claims for the following reason.  
"Since a specified ... time period is considered by the teachings of Heffernan, to provide the specific ... time period of 6 hours as claimed would be considered an obvious experimental choice for optimization in view of Heffernan as a whole." (Examiner's Answer at 5.) The appellants argue, "the primary reference does not, even remotely, teach, suggest or

disclose the use of ... water for at least about six (6) hours ...." (Reply Br. at 3.) They add, "even a hypothetical combination of the two references does not disclose or suggest the claimed limitations which include time ...." (Appeal Br. at 10.)

Claims 4-16 each specifies in pertinent part the following limitations: "contacting said polyether polyurethane foam ink pad with cold deionized water for a time period of at least about six (6) hours ...." Accordingly, the limitations require contacting a foam ink pad with cold water for approximately six hours at a minimum.

The examiner fails to show a suggestion of the limitations in the prior art. "Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor." Para-Ordnance Mfg. v. SGS Importers Int'l, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995)(citing W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1551, 1553, 220 USPQ 303, 311, 312-13 (Fed. Cir. 1983)). "The mere fact that the prior art may be

modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992) (citing In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)). "It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992) (citing In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991)).

Here, the examiner admits, "Haruta et al. does not disclose ... the polyurethane foam being immersed in the water for at least about 6 hours ...." (Examiner's Answer at 4.) This is an understatement. The reference actually discloses washing a foam ink pad for seconds or minutes. Specifically, "[s]atisfactory washing time is usually as few as ten seconds to minutes in case of polar solvents. In case of washing by rubbing or repeated pressing, a few ten seconds are satisfactory." Col., 23, ll. 58-61.

Faced with this deficiency, the examiner alleges, "Heffernan clearly suggests the full consideration of ... a period of time in cleaning a polyurethane foam material which would indicate to one having ordinary skill in the art that one may choose whatever ... time parameter desired." (Id. at 5.) The reference, however, teaches washing a foam ink pad for no more than fifteen minutes. Specifically, "[d]uring the cleaning process, the foam parts are agitated in the liquid solvent for a period of time. The agitation period should be no more than about 15 minutes. An agitation period of at least 5 minutes seems adequate." Col. 3, ll. 56-60.

Rather than a washing time of hours as claimed, Haruta and Heffernan disclose a washing time of mere seconds or minutes. Heffernan specifically limits the washing time to fifteen minutes. In view of this disclosure and limitation, we are not persuaded that teachings from the prior art would have suggested the limitations of "contacting said polyether polyurethane foam ink pad with cold deionized water for a time period of at least about six (6) hours ...." The examiner fails to establish a prima facie case of obviousness.

Therefore, we reverse the rejection of claims 4-16 under 35 U.S.C. § 103.

CONCLUSION

In summary, the rejection of claims 5-9, 11-13, 15, and 16 under 35 U.S.C. § 112, ¶ 2, as indefinite is reversed. The rejection of claim 14 under 35 U.S.C. § 112, ¶ 2, as indefinite, however, is affirmed. The rejection of claims 4-16 under 35 U.S.C. § 103(a) as obvious over Haruta in view of Heffernan is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART

JAMES D. THOMAS )  
Administrative Patent Judge )  
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LANCE LEONARD BARRY	)	
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